



Proposal Form – Standards Development Projects

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Please click [here](#) for guidance on the proposal submission process.

Proposal title	Revise and update AS/NZS 1571 Copper - Seamless tubes for airconditioning and refrigeration
Your name	Phillip Nichols
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Name of employer	International Copper Association Australia (ICAA)
Job title or position	Technical Consultant
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If you are submitting on behalf of an organisation that is different than your current employer, please fill out the information below.	
Nominating organisation	
Primary contact name	
Primary contact position	
Primary contact email	
Primary contact phone	

Section 1: Scope

1A: Provide details of the proposed documents				
#	Title (e.g. Masonry cement)	Project type (e.g. revision, amendment ¹ or new ²)	Designation (e.g. AS 1316:2003) ³	Product type (e.g. AS, AS Int, SA TS, etc...) ⁴
1	Copper Tube	Revision	AS/NZS 1571:1995	AS
2				
3				
4				
5				
6				

¹ An amendment is usually only possible for small changes to recently created documents. See Section 4 of Standardisation Guide [SG-003: Standards and Other Publications](#) for more details.

² If you are proposing to create a new document, please provide a suggested Title.

³ Use the [SAI Global website](#) to obtain the full designation and name of existing documents.

⁴ Standards Australia mainly develops Australian Standards (AS) but it also develops the following Product types: Australian Interim Standard (AS Int), Australian Technical Specification (SA TS), Australian Technical Report (SA TR), Handbook (SA HB), Miscellaneous Publication (SA MP), Supplement (Normative), Supplement (Informative), Australian Standard Certified Reference Material (ASCRM). For guidance, see Standardisation Guide [SG-003: Standards and Other Publications](#).

1B: Write a clear and concise statement of the nature of the issue to be addressed by your proposal.

Describe who is affected e.g. businesses, community organisations or individuals affected by the problem. What are the consequences of no action?

Refrigeration pipes must cater for different operating pressures based the in refrigerant being transferred. Up until recent times the refrigerant operated at up to 45 Bar (4,500kPa), in the liquid state, but the introduction of the environmental friendly R744 refrigerant (CO₂), requires pipes capable of handling 130 Bar (13,000kPa). Product is being supplied into Australia that do not comply with current standard for refrigeration pipes, AS/NZS 1571, as different copper alloys not covered by the standard must be used to cater for the higher pressures. Suppliers are sourcing pipe material to international standards or manufacturers accreditation.

1C: Write a clear and concise proposed scope that will outline how to address the identified issue(s).

Unless this is a proposal for a new document, this should not be a scope of the document, but a scope of the work which you propose to undertake.

Include what is going to be changed from the status quo and summarise the specific intent of the change.

If you wish to include proposed revisions as tracked changes in the standard, or an outline of a new standard, please summarise the scope and note the attachment here, and include the document as an appendix to this form.

It is proposed to revise AS/NZS 1571 to include high strength copper alloy CuFe2P alloy number CW107C and to clarify the method of selecting the appropriate pipe alloy, diameter and wall thickness for the required operating pressure of the refrigerant being used.

EN 12735.1:2016 was modified to include alloy CW107C and it is proposed to review this standard for either comparison, referencing or potential adoption.

1D: Are you proposing an adoption of an International Standard (i.e. ISO or IEC)?	
If so answer the following: ⁵	
Is it a Modified or Identical Adoption? Note: if Identical use the Proposal Form – Identical Adoption	No
What is the designation? e.g. ISO 10303.212-2004	

⁵ Use the [SAI Global website](#) to obtain the full designation and name of existing documents.

1E: Is the existing document referenced in Australian State, Territory or Commonwealth legislation or regulatory framework?	
For joint documents, also consider New Zealand legislation. ⁶	
Yes (List all legislation or regulation that refer to the existing document. ⁷) <i>Note: For National Construction Code (NCC) and WaterMark proposals, the Australian Building Codes Board (ABCB) needs to be consulted prior to submission.</i>	National Construction Code – Volume 3 (Clause E1.2)
No (Go to 1F)	

⁶ To search for standards in Australasian legislation, use our search function [here](#).

⁷ Use the full formal designation for the relevant legislation, e.g. Explosives Regulation 2013 (NSW). If more than four items of legislation are affected, provide a list as an attachment to this proposal form.

Note: All relevant regulatory authorities must be consulted in the stakeholder consultation.

1F: Is there an ISO/IEC document that also covers the issues in question?	
Yes (Go to 1G)	
No (Go to 1G)	No

1G: Will the proposed document include any conformity assessment requirements?⁸	
Yes	
No	No

⁸ See Standardisation Guide [SG-006: Rules for the structure and drafting of Australian Standards](#). Note that conformity assessment requirements are rarely permitted in a standard. If you selected "yes," please discuss with the relevant [National Sector Manager](#) prior to submission.

Section 2: Net benefit

2A: What will be the impact of the proposed project in the below categories? Explain this in terms of a positive or negative impact on the following “Net Benefit” criteria.⁹

Public health and safety (max 200 words)

The proposed revision will provide valid information and alternatives to ensure that refrigeration systems using R744 refrigerants can operate safely without catastrophic failure. Bursting of incorrectly specified pipework using extremely high pressures (13,000 kPa) have the potential to cause fatalities.

Social and community impact (max 200 words)

Sustainability is a key community focus and the use of environmentally friendly R744 refrigerants replaces the use of CFC refrigerants.

Environmental impact (max 200 words)

The use of R744 (CO₂) refrigerant replaces CFC based refrigerant in large refrigeration systems and is being specified by corporation that are focused on their sustainability. Woolworth, Cosco and Aldi are currently specifying R744 based refrigeration systems in new stores.

Competition (max 200 words)

There are no restrictions to competition in this proposal as there are many reputable international manufacturers and systems supplying compatible with R744 refrigerants. These include KME – CL12, HALCOR – TALOS XS, Wieland – K65 and Mueller – XHP. There are a number of local suppliers currently sourcing material from these manufacturers. This proposal will provide a framework for future suppliers to follow and ensure correct specification for the pipework is available.

Economic impact (max 200 words)

The use of R744 refrigerants and the use of high strength copper alloy does increase slightly the capital cost of the installations but this is outweighed by the lower operation costs and superior sustainability.

⁹ Add specific facts and examples if possible. Refer to the [Guide to Net Benefit](#). Not all categories may be affected, in which case, leave these blank.

Section 3: Evidence of support — Stakeholder support

3A: Describe the process taken to gain stakeholder support for your proposal (max 100 words)
 Support is being sought from the original standards committee nominating organisations that prepared AS/NZS 1571 in 1995 and from standards committee ME-006 that revised AS/NZS 5149.1 'Refrigerating systems and heat pumps—Safety and environmental requirements' in 2016.

3B: Identify the Australian stakeholder organisations that you have consulted with. Evidence of stakeholder support MUST be provided in a letter (on company letterhead) or email (company email only).
 At least two New Zealand-based stakeholders must be included for projects relating to joint AS/NZS standards. Include those that do, and those that do not, support the proposal.

Key stakeholder groups	Organisation Name	Contact name	Position	Letter or email evidence is attached: Y/N	Interested in membership of standards committee: Y/N
Research and academic organisations					
Manufacturer associations					
Testing bodies					
Certification and auditing bodies					
Supplier associations					
User and purchaser associations					
Employer and industry associations	ICAA	John Fennell	CEO		Y
Professional and technical bodies					
Unions and employee associations					
Consumer and community groups					
Government and regulatory agencies					
Independent experts					
New Zealand stakeholders					
Other					

Section 4: Declaration

Please check that your proposal is complete and all fields have been filled out. Read and complete the declaration, then forward this proposal and any attached documents to Standards Australia at mail@standards.org.au. The named proponent is deemed to have approved the information contained within this proposal and this declaration.

This declaration is a mandatory requirement and proposals will not be considered without it.

I consent to Standards Australia making information relating to Standards development projects public, including information contained within a proposal form I have submitted in part or in full. In the event that Standards Australia publishes proposals on its website, proponent details at page 1 and stakeholder contact details provided at Section 3 will not be included. However, with prior agreement, my contact details may be provided to interested parties wishing to contribute or comment on the proposal or the proposed project.

The information provided in this application is complete, true and accurate to the best of my knowledge. I believe the proposed document will result in Net Benefit¹⁰ to Australia. I have consulted with, and have the support of, national organisations with a relevant interest in this project.

Name of proponent	Phillip Nichols
Date of declaration	22/8/2018

¹⁰ As defined in the [Guide to Net Benefit](#)